

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor : YUUTA NAKAYA, et al.  
Filed : Concurrently herewith  
For : MIMO WIRELESS COMMUNICATION...  
Serial Number : Concurrently herewith

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

March 16, 2004

**INFORMATION DISCLOSURE STATEMENT**

SIR:

In order to comply with discretionary regulations 37 CFR 1.97 and 1.98, attached hereto is a copy of Form PTO-1449 and copies of the documents listed thereon. These documents contain information which the Examiner may consider to be important in deciding whether to issue a patent in the instant application.

For documents written in a language other than English, English language abstracts are annexed thereto explaining relevancy in accordance with 37 CFR §1.98 (a)(3).

As this Statement is being filed prior to issuance of a first Office Action, no fee is due.

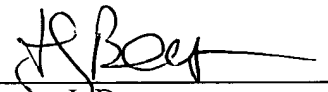
The present Disclosure Statement is being submitted in compliance with 37 CFR 1.56 as an Examiner might consider any cited document important in deciding whether to allow the application to issue as a patent, but the citation of each document is not to be construed as an

admission that such document is necessarily relevant or prior art. No representation is intended that the cited documents represent the results of a complete search, and it is anticipated that the Examiner in the normal course of examination, will make an independent search and will determine the best prior art consistent with 37 CFR 1.104 (a), and in the course of such search will review for relevance every document cited on the attached form even if not initialed.

Early and favorable consideration is respectfully solicited.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. Bean', written over a horizontal line.

Thomas J. Bean  
Reg. No. 44,528

Customer Number: 026304  
Docket No: FUJI 21.070

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1449/PTO	U.S. Department of Commerce Patent and Trademark Office	Application No. :
		Filing Date :
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		First Named Inventor: Y. NAKAYA
Sheet 1 of 1		Group Art Unit :
		Examiner Name :
		Attorney Docket No. : FUJI 21.070

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document	Kind Code if known <sup>2</sup>	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns Lines Where Relevant Passages or Relevant Figures Appear

FOREIGN DOCUMENTS						
Examine r Initials	Cite No. <sup>1</sup>	Foreign Patent Document Office <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Country	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns Lines Where Relevant Passages or Relevant Figures Appear
		2003-060604	JP	Nippon Telegr & Teleph Corp. <NTT>	02-28-2003	

**Other Prior Art-Non Patent Literature Documents**

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, country, where published, source.	Applicant check her if English language translation attached
		I.E. TELATAR. Capacity of Multi-Antenna Gaussian Channels. Bell Labs. Technical Memorandum, 1995, pgs 1-28	
		G.J. FOSCHINI et al. On Limits of Wireless Communications in a Fading Environment when Using Multiple Antennas. Wireless Personal Commun. Vol. 6, No.3 pgs 311-335, March 1998.	
		G.J. FOSCHINI. Layered Space-Time Architecture for Wireless Communication in a Fading Environment When Using Multi-Element Antennas. Bell Syst. Tech. J., Vol. 1, No.2 pgs 41-59, 1996	
		J.B. ANDERSEN. Array Gain and Capacity for known random channels with multiple element arrays at both ends. IEEE J. Sel. Areas in Commun., Vol. 18, No. 11, pgs. 2172-2178, November 2000.	
Examiner Signature		Date Considered	

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that Issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.1<sup>6</sup> if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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